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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,526	12/03/2003	Raymond K. Orr	79115-26 /pw	3203

7590
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CANADA

10/19/2007

EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
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2836

MAIL DATE	DELIVERY MODE
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10/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/725,526

Applicant(s)

ORR ET AL.

Examiner

Michael Rutland-Wallis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-11,13-16 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-11,13-16 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's amendments to the claims and drawings are fully responsive to the previously identified claim objections and Drawing objections hence the objections are withdrawn.

Applicant's arguments with respect to the previous 102 rejections as being anticipated by Belson et al. (U.S. Pat. No. 6,614,133) have been considered and the rejection has been withdrawn.

Applicant's arguments with respect to respect to the 102 rejections as being anticipated by Chang et al. (U.S. Pat. No. 6,768,225) have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 9, 15 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnston (U.S. Pat. No. 5,952,733)

With respect to claims 1, 9 and 15 Johnston teaches a distributed power supply arrangement comprising a plurality of power sources (100A and 100B) for supplying power to a plurality of loads (300A-D) via a power distribution network (see merged power of supply 100A and 100B in Fig. 1 and 5), the power sources and the loads being connected to the power distribution network whereby the power sources are coupled to the loads via respective resistances (resistances associated with the interconnection from that supply to the load) of the power distribution network, the arrangement further comprising at least one voltage sensor (item 500 or 500A-D) for sensing power supply voltage (for example col. 2 lines 55-65) at least one point in the power distribution network, wherein each of the power sources is responsive (col. 2 lines 64 – col. 3 line 6) to the sensed power supply voltage for supplying a regulated power (col. 1 line 15 or col. 2 lines 45-50) to the power distribution network.

With respect to claim 2 and 19 Johnston teaches a plurality of said voltage sensors (500A-D) for sensing voltages at a plurality of points in the power distribution network.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (U.S. Pat. No. 5,952,733)

With respect to claim 4 and 16 Johnston teaches the supplies may contain current limiting circuit (item 250) to limit the current and protect against over current, while Johnston does not describe this means as a regulated current source, it provides the same function, as the amount of current supplied at the output is regulated to be within a threshold.

With respect to claim 5 and 11 Johnston teaches the power sources are arranged for supplying regulated outputs (see 1.5v 3.3v, 5v and 12v outputs) with different relative weights to the power distribution network. Johnston does not teach the current in each of these distributions is different. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify supply the distribution line with the appropriate amount of current to satisfy the demand of the load.

Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (U.S. Pat. No. 5,952,733) in view of Murabayashi et al. (U.S. Pat. No. 6,856,047)

With respect to claim 3 and 10 Johnston teaches the device of claim 1 and 2 but does not teach the sensing of an average of the sensed voltages for supplying said regulated current or regulated power to the power distribution network. Murabayashi teaches a power distribution system wherein voltage sensing is performed using a voltage average (column 8 line 25-40). It would have been obvious to one of ordinary

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skill in that art at the time of the invention modify Johnston to sense an average voltage in order to insure the detection of a voltage abnormality of the supply or system.

Claims 6-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (U.S. Pat. No. 5,952,733) in view of Hayward et al. (U.S. Pat. No. 6,317,345)

With respect to claims 6 and 14 Johnston teaches the device of claim 1 and 2 but does not teach the power distribution network comprises power and ground planes of a circuit card on which the loads are provided. Hayward teaches plural power circuits and ground plane circuitry. It would have been obvious to one of ordinary skill in that art at the time of the invention modify Johnston to implement the system on claim 1 on a circuit card in order to use the system in a backplane arrangement.

With respect to claims 7 Hayward teaches the plurality of power circuits are arranged on the circuit card.

With respect to claim 13 Haywood teaches the supplies may be switch mode power supplies (AC in and DC out). It would have been obvious to one of ordinary skill in the art at the time of the invention to use switch mode power converters in order to provide a DC output to the loads.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

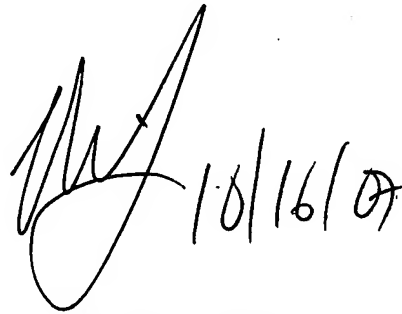
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW

A handwritten signature in black ink, followed by the date "10/16/07" written in a similar cursive style.

MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800